

ABSTRACT OF THE DISCLOSURE

Gate insulation films each containing titanium oxide as a primary constituent material are formed on one major surface of a semiconductor substrate. Gate electrode films are formed in contact with the gate insulation films. The gate electrode films contain ruthenium oxide or alternatively iridium oxide as a primary constituent material. In order to prevent electrically conductive elements from diffusing into titanium oxide of the gate insulation films, ruthenium oxide or iridium oxide is effectively used as a primary constituent material of the gate electrodes. A semiconductor device can be realized in which occurrence of a leak current is suppressed by increasing a physical film thickness while sustaining desired dielectric characteristic.

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